Title:	**Dominica National School Vulnerability Reduction Plan**	
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Hazards examined:	Hurricanes, volcanic eruptions, floods, landslides, droughts, earthquakes and fires.	
Study emphasis:	Economic development, risk management and reduction strategies as well as disaster preparedness and mitigation tactics.	
Summary:	Offers a specific plan for reducing structural vulnerability of schools to the effects of destructive natural phenomena. For each structure, the plan addresses issues such as location, technical characteristics and condition, damage history as well as planning process guidance for designing, building and maintaining less vulnerable schools, profiles on specific projects for vulnerability reduction and recommendations for the development of improved disaster preparedness and response strategies.	

Vulnerability Indicators: Expected damage by type of structure and natural hazard flood, hurricane, landslide, earthquake, volcanic eruption

Economic Development, Disaster Preparedness, Disaster Response and/or Disaster Reconstruction Application: Formulation of projects for vulnerability reduction, data for further development of school maintenance program, data for emergency preparedness school shelter program, draft material for policy changes covering school infrastructure development.

Data Requirements: School inventory with map location and structural characteristics, natural hazard zonation maps, school repair and maintenance data.

Output: National School Vulnerability Reduction Plan covering (1) school inventory with location, technical characteristics and condition (2) natural disaster damage history of school stock (3) policy recommendations for vulnerability reduction (4) school planning process guidance for designing, building and maintaining less vulnerable schools (5) profiles on specific projects for vulnerability reduction of building stock and better maintenance (6) recommendations for improved disaster preparedness and response.

Result of Application at Case Study Site:

The project had three main components:

I. Survey of Schools/Shelters – creation of vulnerability profiles

It was asked to select up to 20 public shelters that needed to be retrofitted. A survey form was developed and applied by local engineers under the guidance of an OAS consultant. The survey of properties helped prepare a profile of the condition of shelters, all 20 properties selected were school buildings. In addition, a vulnerability inventory of all public schools for future retrofitting work was completed.

II. Development of National Plan to Reduce the Vulnerability of School Buildings to natural disasters

A series of workshops was held focused on the formulation of national plan to reduce the vulnerability of school buildings to natural disasters. During Workshop I, the concept and contents of a school vulnerability reduction program were introduced, an outline for a national plan to reduce vulnerability was agreed upon, and working groups were established. After Workshop I concluded, the groups continued to gather information and formulate the draft national plan.
The first draft of the national plan was presented at Workshop II. This workshop gave work group members an opportunity to discover strengths and weakness and critique the overall plan. The resulting document was be presented to the cabinet of ministries on July 1998 for review and adoption.

III. Maintenance of School Buildings

To prolong the life of a structure, it must be properly maintained. Unfortunately, school buildings are often poorly maintained and little money, if any, is typically set aside in recurring budgets for school building maintenance. This contributes to the building's vulnerability to natural disasters. A school building maintenance manual was developed for non-technical staff (school principals, head masters, and teachers). The manual contains a series of checklists and hints on how to prolong the life of school buildings.

Lessons Learned: The Caribbean is no stranger to disasters. Mother nature has shown her dominance and strength repeatedly in the form of hurricanes, volcanic eruptions, floods, landslides, droughts, earthquakes, and fires. This project has successfully united individuals from a variety of sectors, disciplines, and responsibilities to create a National School Vulnerability Reduction Plan and guide the implementation of the CDB Shelter/Schools Retrofit loan program. These individuals would not normally share information or work together on school design and construction issues. A forum for dialogue and collaboration was created by taking something useful to the community at large, a school building, and trying to come up with a strategy and plan to make it safer. It was perceived as a project that everyone would benefit from and was destined for success.

The groundwork has been laid for a regional school vulnerability reduction campaign. It is our belief that awareness has been raised about the importance of safe schools and shelters. For this reason, the players involved in this project will continue to work together to implement the National Plan to Reduce the Vulnerability of School Buildings to Natural Disasters. The project has also raised the issue of design criteria for schools under construction with international and bilateral support. This issue is now being discussed with donor organizations.

The project has definitely raised the problem of seismic resistant design in professional circles. This issue had previously been shunned by local professionals not familiar with engineering design criteria, reinforced by a long period of time since the last major earthquake in the region.

Support from regional and international lending institutions is forthcoming. The 20 properties evaluated during the course of this project will be retrofitted to an acceptable standard using criteria developed through this project and loan commitments with the CDB. This pilot effort serves as an excellent example of how vulnerability reduction programs can be implemented throughout the region.